

L. L. MAY & CO. INC.

NURSERYMEN FLORISTS & SEEDSMEN



ST. PAUL, MINN.

School and Home Gardens

INFORMATION AND SUGGESTIONS
FOR CHILDREN'S GARDENS AND
JUNIOR CIVIC LEAGUES



L. L. May & Co.

ST. PAUL, MINN.

Minnesota's Boy Champion Gardener



Lynn Harrison, Excelsior, Minn.

Won the \$200.00 prize for the best Corn grown in Minnesota
in September, 1914

Information and Suggestions on School Gardens



Children's Home Gardens
Junior Civic League Work



By L. L. MAY, Jr., Secy.

L. L. May & Co.

St. Paul, Minn.

The Meaning of The School Garden

The dominating thought of the teaching of all great educators, from the Ancients to those of the present day, has been the bringing of the child into closer relationship with nature.

The Greek schoolmaster made long tours of the country side with his pupils, instructing them as he went along. From this on, through the Christian era, to Froissart and Froebel, we find the leading minds in science of pedagogy advocating these outdoor schools and the teaching of abstract truths through the concrete medium of nature and nature study.

Every teacher's ideal is to teach in this practical way, to use nature, and her divers forms, to point out the lessons that were, otherwise, incomprehensible to the little mind, that can think only in terms of what it already knows. Every true teacher would love to have her school under the oak or in the open field, but the exigencies of our modern school system, the number, and diverse character of our public school pupils, the heavy tax on the energies of the ordinary public school worker, preclude all possibility of this divine leisure, that is necessary for the perfect unfolding of the infant consciousness, and throw us back into the dry routine, which everyone of us recognizes as deadly, and which, yet, none of us, has the courage to break away from.

Happily, a rather delightful inspiration was vouchsafed, not long since, to several good women interested in education. The idea of school gardens seemed to them a practical and useful way of getting back to nature for the city child. They experimented, and found that the merest suggestion met with response that outdid their greatest expectations.



Packet Filling Machines Where School Garden Packets are Filled
Capacity 250,000 Packets Daily

The children took to gardening like the proverbial duck to water. Little hands delighted in grubbing in the soft, moist earth; little muscles grew strong and hard from digging and hoeing; little lungs expanded in the fresh air; little cheeks grew round and ruddy in the sunshine; and little minds, toned by healthy little bodies, grew more alert under the stimulus of this fascinating new study. Vacant lots, near school buildings, were requisitioned, the owner's permission obtained, and the desert places made to blossom.

Austria established school gardens in 1869, instituting them in connection with all schools in the country districts, and now maintains eight thousand of them, while Sweden has two thousand and France twenty-eight hundred schools, where practical gardening is taught; but it remained for America to use the school garden as an educational force among the children of her crowded cities.

Henry S. Clapp started this movement in Boston in 1890; Women's Clubs in the various large cities took it up, and now it is almost universal. Mr. R. F. Powell, Superintendent of Willard School Farm, Cleveland, Ohio, but formerly, superintendent of Vacant Lot Gardening in Philadelphia, Pennsylvania, gave



Putting up School Garden Orders

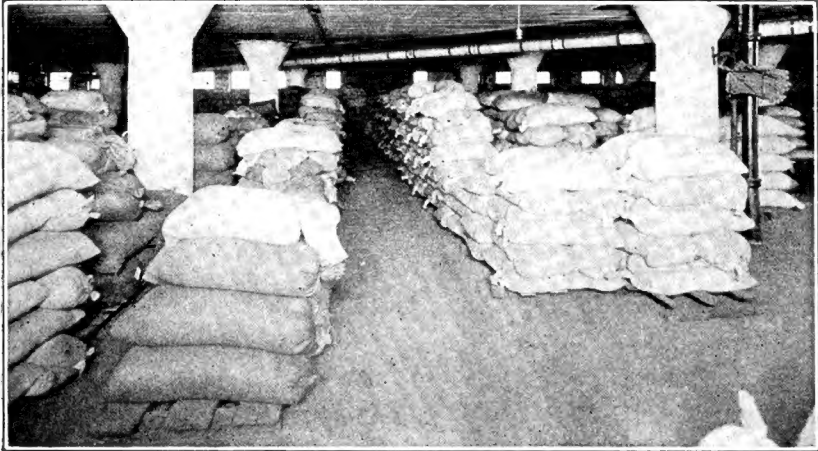
a practical demonstration of school gardening when he established, and managed, more than eight hundred individual gardens.

Minneapolis, Minnesota, last year, had a wonderful system of home and school gardens and computed the value of the crop harvested from these children's gardens to be \$50,000.00, while the cost of production was \$6,154.55, and this is not taking into consideration the pedagogical value of the gardens at all.

HINTS TO THE TEACHER

The actual lessons that may be derived by the clever teacher from this "play-work," are almost illimitable: The great principle of cause and effect is amply illustrated; a study of the soil, and its components, opens a field as vast as the ages, and may be made the foundation for later geologic studies, or, treated from a chemic standpoint, may make a sound practical basis for later chemistry work both organic and inorganic.

Plant development is a self evident lesson, but cell development may be explained with it, and the nucleus of botanical study implanted in the child's mind. In other words, it will be from their utilitarian side, that the child

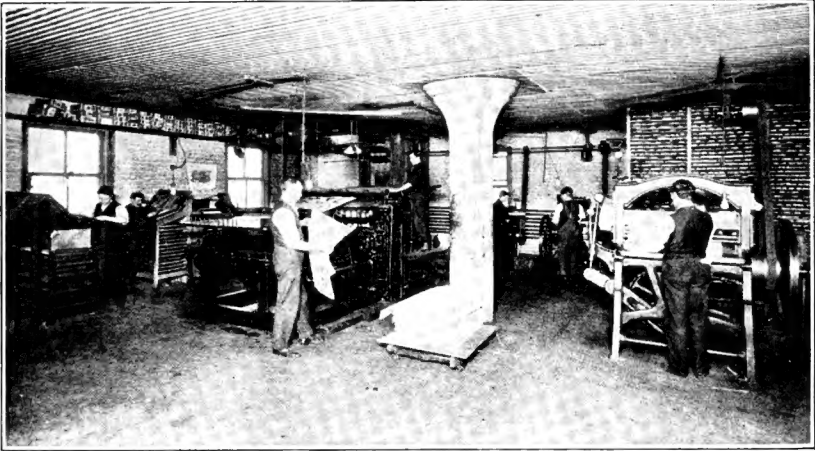


A Partial View of Our Storehouse Showing Our Method of Caring for Seeds in Storage. Well Ventilated and Dry to Produce Maximum Germinating Results

will first have acquaintance with the sciences. It is the high school teacher, who is constantly besieged with the question, "What's the use?" who can tell best what this means in all later study?

Conservation, the great demand of the present day, is practically illustrated; frugality, the crying need of our present American generation, is instilled with each vegetable harvested; the rudiments of the industry on which life depends, namely agriculture, are taught thoroughly. The child is prepared for citizenship by having the practical care of, and interest in, private and public property, and develops an independence of character, only possible when he is dependent on his own efforts, for the results of his labor. It trains eye and hand, develops a love of the beautiful, and, above all, keeps the children off the streets, substituting a wholesome, healthful, remunerative occupation, for the wasteful idleness, and general tendency to mischief, that are attendant upon the period of the long vacation.

School and home are brought into closer relation, and co-operation of parents and



Our Printing Department Issuing Helpful Literature for the Little Folks for Their Gardens

teachers, that excellent thing of which we hear so much and see so little, is encouraged.

It is to the teachers, primarily, that we are addressing ourselves, for it is they who comprehend, chiefly, the value of this work, and it is they who must give it the impetus that will make it a success. Tell the children about the school garden movement; select some teacher in your school who is enthusiastic about gardening; let her form a little club or School Garden Association with an advisory board of the older members, and let the children, as far as possible, take matters into their own hands.

It is an easy matter to procure ground; the owner of any vacant lot will gladly let you use it, for it not only improves the ground itself, but adds greatly to the neighborhood and surroundings. Give each child his own little plot and let him pick out his own seed.

HOW TO ORDER

We will send one of these booklets to each teacher in your school, and an order blank envelope to each child. Let the



Shipments by Parcel Post Going to Nearly Every School
in the Universe

child take the order blank home, and, with his parents' assistance, make his selection, writing in ink the number of packets desired opposite the name of each variety.

Any rules that boards of education have made, prohibiting teachers selling articles to children, do not apply to seeds, as almost every state has passed laws requiring the teaching of agriculture. Moreover, by asking the parents to help select the seeds, the responsibility, in the matter of purchase, is shifted from the teacher to the parents, where it belongs, when any monetary considerations are involved.

Send all orders to us, being careful to keep all orders for each room separate. Seeds will be delivered to you, all delivery charges prepaid, each individual order in the large sealed envelope containing the order.

Women's Clubs, Civic Leagues, and County Fair officials will all co-operate with you; in many places they have been the originators of this movement. In one city, where the idea of selling seeds to the children did not appeal to the authorities, the Women's Club donated five packets each to one thou-



Children Preparing the Seed Beds

sand children. The results were so pleasing that the teachers indorsed the project heartily, and the next year the school board permitted seeds to be sold throughout all the grades.

Many Clubs wish to order seeds in quantity, to sell to the children, but it has not been found satisfactory, as there is no way of anticipating the amount or varieties that the children will like. The better way has been found to be that of securing individual orders, and sending them on to us; thereby obviating the possibility of the Club's having a quantity of seed left over at the end of the season. However, we will supply seeds in quantities of not less than a thousand packets, each variety packed separately, at \$9.00 per thousand; three thousand or more at \$8.75 per thousand, and five thousand, at \$8.50 per thousand. These prices will not prevail where we fill individual orders.

The special school children's penny packets, which we

are putting on the market, contain only the finest varieties, and are of the best strains of their kind. They are those of easiest culture, and best adapted to the ordinary garden. Our seeds have stood the test of a quarter century for purity, and high germinating quality, and are backed by our reputation in the horticultrual world.

Orders must be accompanied by cash or postal money order.

HOW TO BEGIN THE CHILDREN'S GARDEN

The term "School Garden" means a garden in connection with the school, operated by the pupils, in the interest of education. It is, in a certain sense, a public affair. In its working out it may be treated in three ways: divided into (1) individual plots where each child works his own plot (2) dual plots where two pupils work on one plot and (3) community gardens where there are no divisions but where the whole garden is planted as one area and all the pupils have a general interest in it. Vacant lots in the vicinity of the school building should be easy to secure as the gardening not only improves the property, but adds to the environs greatly.

In St. Paul, when there was not enough available ground for more children than those of one grade to work, gardening was confined to the fourth grade, so that each pupil might have one year of practical work. It is, when all may not participate in the school garden that the home garden plays a large part. Not only are backyards and rubbish heaps converted into things of beauty and order, but the child's individuality and sense of responsibility is developed, and, often, the home garden will prove a money making venture of no mean order.

A combination of home and school gardens is most happy, because the child may put into practice at home, lessons learned in the school garden, which he has not the space there to carry out; but where the combination of the two is not possible, the teacher should endeavor to maintain a lively interest in the home garden, for many educators consider it more practical and satisfactory in its results than the com-



First Prize, Bed of Beans

munity school garden. It develops a sense of ownership and proprietary right in the child, tends to bring him into closer relation with the parent, who cannot help having an interest in the thing so close to home; it keeps the child at home and off the street, away from demoralizing influences, and gives him a pride in his home, by making it a more beautiful place all around, and is a large factor in the movement to beautify our cities and villages. In addition to all this, as I have before mentioned, it provides succulent fresh vegetables and sprightly blossoms throughout the season, and is no mean factor in the reduction of the high cost of living.

In one of the smaller cities gardens were established in connection with four (4) schools at an expenditure of seventy-five dollars by the school board. During the season the pupils sold two hundred and fifty dollars worth of flowers and vegetables proving the investment a most excellent one from an economic as well as an educational standpoint.



One of the Large School Gardens in our Vicinity
of Which we are Very Proud

In selecting a location for the home garden, choose a place where there will be sunshine for at least the greater part of the day, as flowers and vegetables will not succeed in the shade. Keep as far as possible away from large trees, as their roots will absorb the fertility and moisture from the soil; and do not make the flower beds where drippings from the roof will fall on them.

LAYING OUT THE GARDEN AND PREPARATION OF THE SOIL.

Nothing beautiful was ever made without a plan. The architect plans his house, the engineer plans his railroad, first on paper, so the gardener must draw out symmetrically and beautifully, the orderly array he anticipates later. Make your

drawing to scale, and, for the school garden, get the size of your lot, and determine the number and size of the plots you wish to divide it into.

Allow for one central community bed where flowers may be arranged wholly with an eye to beauty. A large Castor Bean in the center, with other flowers, grading down in size to low growing border plants near the walks, will be most effective, and will greatly improve the appearance of the whole garden.

Rectangular plots 4 x 8 feet for the smaller children, or 5x 15 for the larger, will be found most satisfactory, never wider, that weeding and cultivating may be done without trampling on the beds. Main walks should be from 3 to 4 feet in width, and those between beds about two feet, as many varieties of plants will encroach on the walks as they develop. A border of shrubbery or hardy perennials is most attractive, and may be allowed for, around two sides of the garden, at least.

Now that you have your plan carefully drawn to scale, proceed to the carrying out of it. If it is possible, it would be best to have had the ground ploughed during the previous autumn. Failing this, after a top dressing of fertilizer, a good spring ploughing will do, if it is followed by a thorough harrowing and crushing, pulverizing all lumps, and having the surface level and smooth, ready for laying out into beds. A mellow soil, that crumbles apart when worked in the fingers, is in the right condition to receive the seed; too wet or cloddy soil will soon dry out, and not nourish the plants.

With a tape measure, heavy twine, several large stakes, and a number of smaller ones, and a stout mallet, the teacher is ready to give the first lesson in applied science and mathematics. The older pupils would be the best to do this work, the younger ones looking on. Use the large stakes for marking prominent corners, the smaller, for locating plots, etc.; drive them firmly in, and by means of the twine, lay out beds and walks according to your plan. After these have been outlined, remove with shovels, about two inches of surface soil from the walks, scattering it over the beds; then, with iron garden rakes, pulverize and work the beds evenly, disposing of all clods.

Deep walks are not desirable as they tend to drain the water off the beds, just sufficient depth to mark them, is all that is desired. Beds should be laid out with the length running east and west, with rows planted across them, about one foot apart, allowing the sun to shine freely between the rows.

PLANTING THE VEGETABLE GARDEN.

Many of the vegetables must first be planted in the house, if we would get an early start. For the school garden, window boxes may be begun as early as late February or March. Early Cabbage, Cauliflower, Egg Plant, Peppers and early Tomatoes will all flourish in the school room window. Flat boxes are easily procured from any florist for little or nothing, and busy little hands, under "teacher's" supervision, will do the rest. But as soon as the frost is out of the ground, and the soil ready, Beets, Carrots, Early Cabbage, Lettuce, Onions, Parsnips, Peas, Radish and Spinach may be sowed. The rows should be about a foot apart running north and south that the sun may shine between them all day, and the seeds covered from a quarter to one inch deep according to the size of the seed. After the seeds are covered press the soil down firmly or pat it gently with the back of the spade if it is not too moist. Then watch until the fruit trees are in bloom, and the soil warm and mellow, and plant Beans, Cucumbers, Melons, Pumpkins, Squash and Tomatoes. Now transplant your little plants, that have been growing so nicely all this time in your window boxes, carefully, not to disturb or break the rootlets.

PLANTING THE FLOWER GARDEN.

Some of the flower seeds, as well as the vegetables, should be started in the house, in order to hasten their flowering season, so, if you will have recourse to the flat boxes again, Asters, Carnations, Forget-me-Nots, Pansies, Phlox, Snapdragons, Stocks and Verbenas will do excellently in them. Cover the boxes with a pane of glass to prevent the atmosphere of the warm sun from absorbing the moisture from the soil and remove it when the plants are well grown.



Constant Cultivation Insures Success. This Makes for
Health and Citizenship

Hardy annuals will do better if planted quite early, as soon as the soil can be prepared, and, among these, are Alyssum, Bachelor's Button, California Poppy, Calliopsis, Pinks, Larkspur, Mignonette, Petunia, Phlox, Poppy, Sweet Peas, Sweet William, Verbena. Other varieties, not heretofore mentioned, are likely to die if planted too early in the garden. These may be started in frames, out of doors, if you wish to get them in early.

The frame may be of any size, and made of inch boards about eight inches wide. If window sash is available, cover with that, if not, light muslin will do, which will protect the young plants from the cold winds and rain, and yet let in enough light to make them grow. Dig and pulverize the soil to the depth of a foot; mark out the rows 3 or 4 inches apart and sow the seed regularly in rows, marking each row with a label or stake; cover about a quarter of an inch, or, in the case of fine seed, as Petunia, simply press into the earth.

TRANSPLANTING.

When the plants in frames or flat boxes are 3 to 4 inches high, select a cloudy day after a rain, and transplant them

to the garden where they are to bloom, taking great care not to break the rootlets, planting them a little deeper than they were in the frame, and pressing down the soil firmly. At last your garden is on its way. Now to watch for results!

CARE OF THE GARDEN.

After the crops are all in, the little green heads begin to peep up out of the ground, the care of the garden is a very important thing, indeed.

In the first place, the weeds are quite as likely to grow as are the seeds, and must be carefully pulled out, but, be sure you know the difference, and do not pull out plants, by mistake.

As the radishes come up, the weak ones should be pulled out until the rows are thinned to strong plants, about one inch apart. The same should be done to the lettuce, at first leaving the plants four inches apart, and, as they grow, making the space between them ten to twelve inches. The thinnings need not be wasted, for they are delicious and tender. Beans should be thinned to stand six inches apart, and beets, after they are about three inches high, may be well thinned, and the thinnings used for greens. Pull out the weaklings in each hill of corn, leaving about three plants to a hill, and do the same with the vine plants, that is, melons, cucumbers, squash and etc.

Cultivation is a big factor in the success of a garden. If possible, do a little cultivating every day, for you will not only keep out the weeds, but, if the weather is dry, you will conserve the moisture, and if it is wet, will keep the soil from getting sour.

As for the flowers, make little trellises for the Sweet Peas and climbing sorts, and, if you want lots of blossom, pick your flowers every day. Do not let any dry blossoms remain on the plants, or do not let the blossoms go to seed, for if you do, your plant will think its work for the year is done, and stop blooming altogether.

DANGERS

Bugs and insects are waiting for your garden just as much as you are, so, if they are not to get it first, it behooves you to watch for them, and not give them a chance. The first bug to come along is the cut worm. He lives just under the ground around the plant and is about an inch long, fat and grayish. Paris green, a very dangerous poison, will put an end to him, if mixed with some bran and placed about the plant.

Tiny green insects, called "aphis," may attack your sweet peas. Tobacco dust is good for these. The tomato worm and cabbage worm, to say nothing of the potato-bug, are ready to gorge themselves at your expense, and if you find any eggs on the leaves of your plants, crush them, for they will become more worms in their turn.

Spray your bean vines, cucumber and melon vines with "pyrox" to prevent blight, and above all, coax the birds into your garden by placing a little bathtub for them, for they will eat up more of the nasty bugs than you can kill with all your ingenuity.

HARVESTING THE CROP.

The first of your crops to be harvested will be the radishes, which will be ready, in, from three to six weeks from the time of sowing. Gather them while they are crisp and tender, and when one crop is gone, prepare the ground for another, so that you won't waste any space, and will have radishes all summer.

Lettuce will be the next to mature. If you want head lettuce, you must transplant the small plants, or else thin them to about twelve inches apart. As the heads grow, tie up the outside leaves, and you will have beautiful, pale yellow heads of tender hearts, that will make your mouth water.

After the lettuce, will come the peas and beans, and the long, green cucumbers that may sell for ten cents apiece. By the last of July, or the first of August, the corn will be ripening, then the water melons, and the muskmelons in Sep-

tember, while onions, squash and carrots will come trailing along right up to frost.

In the flower garden the Sweet Peas will be about the first to blossom, then the nasturtiums, and the morning glories. Larkspur, cosmos, mignonette and pansies are all summer flowers, but the salvia and asters will not do much blossoming until August and then will keep on right through September and October until frost.

HOW TO ENCOURAGE THE CHILDREN

One of the most successful means of promoting interest in children's gardens is to have annual shows or exhibitions. These may be made civic affairs, with competition open to all the schools of the city, or they may be strictly local, confined to districts, wards, and etc. They should be held during September, or the early part of October, in the school buildings, or, weather permitting, out of doors in a vacant lot. The occasion may be made a gala one, and open to parents and all others interested. Prizes should be awarded in classes, and competition should be restricted to children of the same age and grade. Public spirited citizens, clubs and civic leagues, to say nothing of business men who will do it for the advertising, are glad to give prizes of all sorts, and it is not so much the prize, but the honor of winning it, that appeals to the child.

The following are a few suggestions for exhibiting from a man experienced in the matter:

Best display of Vegetables, Wards or schools to compete.

Best display of Cut Flowers, Wards or schools to compete.

Best Home Vegetable Garden, 1st to 4th grades, 5th to 8th grades.

Best Home Flower Garden, 1st to 4th grades, 5th to 8th grades.

Best combined Flower and Vegetable Garden.

Best kept Front Yard, Lawn and Flowers.

Best back yard including flowers, vegetables and lawns.

Best display of Vegetables, 1st to 4th grades, 5th to 8th grades.

Best display of Flowers, 1st to 4th grades, 5th to 8th grades.

Best Specimens of Vegetables, 1st to 4th grades, 5th to 8th grades.

Best Essay on Gardening, 1st to 4th grades, 5th to 8th grades.

Economic prizes for the best paying piece of ground (plots of equal size competing) may be offered. i. e.

The plot that pays most in money or in pounds of marketable provender is to receive the award.

One little girl in Tippecanoe City, Ohio, sold \$10.00 worth of tomatoes from one penny packet of seed, thereby winning this prize in the competition.

Various other awards will suggest themselves to the interested spectator, and a lively committee is necessary to secure the prizes, and arouse the general enthusiasm.

WHAT OTHER CITIES ARE DOING.

The large cities all over the United States have taken up this work, either through clubs, or associations, or through their boards of education. St. Paul last year had an enthusiastic Garden Club, under the leadership of a coterie of women, well qualified for the task. Teachers, as well as children, took up the idea avidly. The Garden Club found itself (or themselves) swamped with demands for seeds, and the results were far in excess of anything they had anticipated.

Minneapolis has been quoted before as one of the banner cities in the extension of the Children's Gardens. It was not only schools and clubs, there, that took up the movement, but newspapers, (the Minneapolis Tribune had large gardens for children); business houses and commerce associations joined in the city beautiful idea, and helped the children make every vacant lot blossom.

In Cleveland it was the Cleveland Plain Dealer with the co-operation of Mr. H. L. French, a councilman of Cleveland, and business city officials, among them Mr. John Boddy, who brought out, and propagated, the idea of children's gardens, with the idea of keeping the children off the street. A festival of the products of these gardens was held in Wade Park, and

had an attendance of over fifteen thousand people. The Garden Club there for 1914 had one thousand names and will surpass itself in 1915.

It was three years ago that the School Garden movement was begun in Kansas City. The directors of the school district took the matter up as an experiment, and eight schools had gardens the first year, utilizing vacant lots, and patches of ground that would otherwise have been given over to weeds and rank growth. On the children's part the work was purely voluntarily, but the response was so great, that the next season, four times as many gardens were in operation, and nearly ten thousand children were working. Better, and more economical methods of home gardening were brought about by school garden supervisors over looking the home gardens. Soil and soil fertility, rotation of crops, sterilizing and canning of vegetable crops, food values, etc., were taught in a practical way. High school classes in "agricultural botany" were organized, and experimental greenhouses were erected. Last summer Kansas City had fifty-five school gardens, one thousand vacant lot gardens, and over two thousand children's gardens were started as a result of the influence of this work.

The city of St. Louis co-operated with the Real Estate Exchange and the Civics Committee of the City Club. The Superintendent of the Board of Education agreed to provide the children to do the work of cultivation, if the city would give the vacant lots, and the result is regular classes of agriculture in all the schools of the city.

The Superintendent of schools in Memphis, Tennessee organized two thousand children into gardening squads for school gardens and two thousand more for home gardens.

Uncle Sam himself is interested in this idea and the United States Commissioner of Education has estimated that two million school children can be profitably engaged, and thus employed, will increase the value of the country \$100,000,000.00 each child averaging \$50.00 worth of produce raised every year.

Cincinnati, Ohio, numberless cities in Pennsylvania, New York, even Florida, are all taking it up and Oregon, the most westerly state of all, leads in this matter of home and school

gardening. These cities have, between them, used various methods, some have had public lectures on gardening, others have hired expert gardeners to give courses in practical gardening, stereoptican views have figured largely in the training of the children and apparently no means of encouraging them has been neglected.

The possibilities of this movement seem to be limitless in all directions, and that it is educators and citizen-makers that recognize them, is one of the surest proofs of their soundness.

SHRUBS AND TREES FOR THE CHILDREN'S GARDENS.

While seeds and their growing form the principal part of the children's garden, shrubs and trees are by no means uninteresting in development. In the school garden, they may flourish in the border land to be devoted to perennials, and are quite necessary to complete the agricultural lessons that the school garden aims to inculcate, or, they may be used effectively to beautify the school yard, to hide ugly corners, or unsightly views, and will make the school building a thing of beauty, to the influence of which the impressionable little minds will ably respond.

In this connection, too, we would urge the sowing of lawn grass, where school lawns are patchy and moth-eaten in appearance. The children's pride in a park-like school yard will more than compensate for time or expenditure involved.

But to return to shrubs and trees. In the home garden they are a necessary and ever increasing delight. Apple trees in the back yard will give blossom, fruit and shade in increasing proportion as the years go on. Instead of an ugly backyard fence, a hedge, that will need no repairing but grow higher and thicker every year, will give romantic seclusion to the garden, and privacy, not to be invaded by mischievous boys who cannot climb over, or penetrate its thorny fastnesses. Raspberry bushes, currants and etc.,—it is surprising how much fruit a few small bushes will yield, enough to furnish a moderate sized family during the entire season.

In the front lawn, or in the garden, heavy headed lilacs are purple, long before the first flowers are in blossom, and

sweet syringas and snowballs give a gala appearance while seeds are sprouting.

Paeonies and roses fill in the month of June until the annuals are blooming, and, after that, the massive hydrangeas are white, lavender and pink until October. One thing in the favor of shrubs is the little care they require. While a garden of seeds must needs be guarded and watchd over, the shrubs once planted will do excellently without renewing or culture, and, instead of dying down with the frost, will come up again each spring with renewed vigor.

We have prepared the following list, as especially suited to children's wants and abilities, and are putting them at these prices which will suit the children's purses.

WINDOW BOXES, INDOOR GARDENS, ROOF GARDENS, AND ETC.

In many of the crowded districts of our large cities it is quite impossible to secure land for gardens any where in the neighborhood of the school. Under these conditions, the school garden may spread out over the whole school year for window gardens are the next best thing to outdoor gardens, and any teacher may have her room filled with these. The box should be about eight inches deep, a foot wide and long enough to suit the available space. It should be filled to within an inch of the top with good rich, well prepared soil, a layer of gravel or coarse material and a few small holes, drilled at the bottom of the box, will facilitate drainage.

In planting, one may use ones own discretion with regard to seed, but the common annuals give a most delightful effect. Nasturtiums would be particularly happy if part of them were trailed over the window, and others allowed to droop over the edge of the box. Canary vines or cypress vines or sweet peas combined with sweet alyssum, pansies and etc., are very pretty, and, for a north window, or one that gets little sunshine, ferns, begonias, fuchias and wandering jew will make a splendid showing. These suggestions apply to porch boxes and window boxes at homes where there are no lawns or back yards.

Many schools, as well as apartment houses, are fitting up roof gardens for the use of the neighborhood during the summer months, and in crowded communities the school roof garden may be made a boon to the members of that community. The boxes should be large, and built in the form of beds, while the parapet about the edge of the roof can be covered with the narrow porch boxes.

The children can cultivate these roof gardens, they will be safe and happy, off the streets and above the heat and bad air that make the summer streets of our big cities so noisome. It is also a haven of refuge for the tired parents who, too tired to drag themselves to the parks, may here feast their eyes, and rest from the labors of the day. You who live near trees and flowers, do not know what it means to be deprived of all sight of them, especially in the summer, and to the flower loving foreigners, whose whole lives have been spent in rural communities, they mean more than you can imagine.

GROWING FLOWERS TO SELL.

A word in passing anent the business side of the children's garden, the commercial aspect, as it were, where the child may grow flowers in the home garden for profit. The first consideration is to raise what will be readily saleable and popular, the second is to raise that at the least cost in the actual expenditure of money, as well as labor and time.

GLADIOLUS.

On our experience in selling summer flowers, we have found the gladiolae to lead all others in popularity. They are by far the most beautiful in form and coloring, suggesting the orchid or butterfly in shape and delicacy and more than the gorgeousness of the tropics in the variety and richness of shading. They range from the purest white to the deepest crimson. They are cerise, violet pansy purple and pale heliotrope. Yellow, canary and crimson, salmon pink, rose pink, pale blush, flame color and orange are only a few of the names of color that may be applied to the exquisite bell like blossoms, sometimes three inches in diameter, that are borne seventeen

and eighteen on one long sword like stalk.

In addition to their beauty as cut flowers they have a lasting quality that outdoes that of any other flower. After cutting, the buds will continue to unfold in water and the ordinary life of a cut gladiolus stalk is ten days. These may be sold for from 50 cents to \$1.00 a dozen even \$1.50 per dozen being paid for special varieties and florists are generally willing and eager to take all they can get, while a trade with private individuals might prove more profitable and remunerative. In addition to this, the bulbs are very easily grown.

They are inexpensive to procure in the first place, and once planted, require little more than ordinary care and attention to produce the most astonishing results and if carefully saved at the end of the season may be kept from year to year.

We have grown these bulbs at our nurseries for years and from our experience have made a collection of what we have found to be the best and most popular varieties. In order to interest the children we are placing this "Prize Collection" at the following price which will be found to be much lower than that in our regular catalog, and include delivery postpaid. First class bulbs of this Prize Collection, 1c each, 10c per dozen, 100 for 90c, 1,000 for \$8.00.

This collection includes the following famous varieties of prize winning strains:

America—Soft Pink,
Augusta—White, with Lavender Anthers,
Cardinal—Scarlet,
Klondyke—Primrose Yellow,
Taconic—Bright Pink,
Mrs. Francis King—Scarlet.

And other Famous Sorts.

FINALE.

In closing we would like to give a word of caution to our readers against planting inferior, or so called "cheap," seeds. In no business in the world is there such a chance for the practice of charltanism, and imposition, as in the seed business, for the results of your "bargain" do not appear until several months after purchase, when it is lack of results, then,

that usually proclaims its worth. The only way to insure your crop is to purchase reliable seed from a reliable firm. We exercise the greatest care in the selection and grading of our seed, our testing system is that used by the department of agriculture at Washington, D. C., and all our seeds are tested by us as to germinating qualities and etc.

NOTICE

Please observe the two order blanks which we are enclosing herewith.

The envelope containing the list of seeds we would ask you to use for seeds alone, as they are shipped immediately on receipt of your order.

In ordering Shrubs, Bulbs and other nursery stock, please use this printed list of the same, as these orders are filled in different departments and will be shipped as soon as weather conditions will permit. Their success depending on their being planted as soon as received by you.

OUR CATALOG.

Our large catalogue of seeds, plants, trees, shrubs and bulbs, a book of 128 pages, fully illustrated and containing all directions and information necessary to the making of a garden will be sent free to any one asking for it.

BULBS FOR FALL PLANTING.

When very early flowering is desired, for window boxes or out of doors we would advise the planting of hardy Dutch bulbs which may be planted in October, out of doors or in the spring in window boxes. Tulips, Narcissus, Daffodils, Hyacinths, Crocuses are delicious in their season but their sweetness is past telling indoors when the snow is on the ground.

Let us urge you again to bring nature close to the children, to give them the great heritage which she meant them to have, and which we, in our civilization, have, for a while, deprived them of; communion with her and her various forms. You will find that it will be the greatest factor for good that you can bring in to their education. And we are not alone in our idea that the time is coming, when every city and town and community will have thousands of tiny gardens in its vacant lots and better healthier and more wholesome ideals among its "little citizens."

Nursery Stock

This collection of nursery stock has been made up of various varieties which we have found to have given the most satisfaction generally in our nursery trade throughout the United States. They are all of the best varieties and will be found quoted at much higher prices in our regular catalog. We are however listing them here at absurdly low rates to enable the children to procure them and to stimulate their interest in gardening and things pertaining thereto.

Gladiolus.—For description see page 22 of booklet.

Bulbs—1c each, 10c per dozen, 90c per hundred, \$8.00 per 1,000.



PAEONIES.

The most beautiful of the perennials and have the added virtue that they require no culture after they are once planted. We are offering them in the three colors—Red, White and Pink, of the best strains of the named varieties.

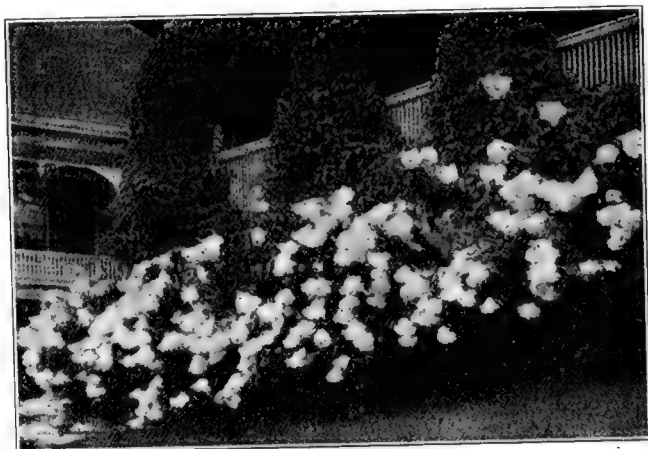
Price, 10c each; 1 Doz. for 90c.

Nursery Stock--Con't.

SUMMER FLOWERING SHRUBS.

This collection will insure a succession of bloom during the entire season from May to October.

Snowball. —Panicles of large white flowers. May. Each.....	8c
Lilac. —Tall shrub with large purple heads of bloom. May. Each	7c
Syringa or Mock Orange. —Very fragrant, white waxy blossoms. June. Each	7c
Bridal Wreath. —Lacy white blossoms. May and June. Each.	7c
Weigelia. —Lily shaped blossoms in Red, Pink or White. June. Each	9c



HYDRANGAEA PANICULATA GRANDIFLORA

Hydrangea.—Immense heads of white flowers turning to lavender and pink from July till October. Each..... 8c
Above collection of 6 varieties for 40c.

HARDY CLIMBING VINES

Ampelopsis Engelmanni. —One of the hardiest vines for planting in the north and northwest; a rapid climber. Each.....	8c
Clematis Paniculata. —Climbing vine, making rapid growth covered with panicles of fragrant white flowers. Each.....	8c
Honeysuckle. —Climbing vine of rapid growth with scarlet trumpet flowers. Each	8c
Japanese Kudzu Vine. —Grows 40 to 50 feet in one season, excellent for shade. Each	8c

Nursery Stock--Con't.

ROSES.

Hardy Perpetual Roses.

Alfred Colomb. —Crimson, very large and full. Each.....	15c
Baron De Bonstettin. —Deep velvety maroon. Each.....	15c
Baron de Maynard. —Pure white. Each.....	15c
La Reine. —Clear Pink. Each.....	15c

Entire collection of above 4 varieties for 50c.

Summer Blooming Roses.

These give a profusion of bloom during the entire summer and require the protection of a slight covering during the winter.

Richmond. —Dark red, very large. Each.....	15c
White Killarney. —Very large, exquisitely formed, white. Each,	15c
Pink Killarney. —Pink, same as White. Each.....	15c
Sunburst. —Yellow. A new variety on the apricot shade. Each,	15c

Entire collection for 50c.

HARDY CLIMBING ROSES.

These are used for covering porches, trellises and etc.

Baltimore Belle. —Very fragrant, blush white. Each.....	15c
Queen of the Prairie. —Strong pink, very fragrant, double. Each	15c
Crimson Rambler. —Crimson, roses borne in clusters. Each....	15c
Dorothy Perkins. —Shell pink, very hardy. Each.....	15c

Above collection of 4 varieties for 50c.

Lawn Grass

Our Central Park Mixture of Lawn Grass is one of the best blendings of seed that we have ever known for general planting. Different soils and conditions demand different varieties of seed. We have however, endeavored to put together the varieties best suited to ordinary conditions when a good root is required and also a quick top growth and we feel assured that this mixture will give great and immediate satisfaction. Sow if possible before a rain and give a top dressing of a mild fertilizer.

1/4 lb. to sow 150 square feet 8c

Fruits

APPLE TREES.

The following have been found to be the most desirable of our Minnesota grown varieties.

Okabena. —An early variety, strong 1 year old grafted. Each..	7c
Duchess of Oldenburg. —An early variety, strong 1 year old grafted. Each	7c
Peerless. —A medium variety, strong 1 year old grafted. Each,	7c
Hibernal. —A medium variety, strong 1 year old grafted. Each,	7c
Wealthy. —A late variety, strong 1 year old grafted. Each....	7c
North Western Greening. —A late variety, strong 1 year old grafted. Each.....	7c

Above collection of 6 varieties for 40c, or 1 Doz. for 75c, purchaser's selection.

CURRANTS.

Strong Bushes.

Cherry. Large red. Each.....	5c
White Grape. —Large White. Each.....	5c
Black Naples. —The best black variety. Each.....	5c

One dozen, 50c. Purchaser's selection.

GOOSEBERRIES.

Downing. —Fruit large, white, very prolific. Each.....	7c
Houghton. —Standard Red variety. Each.....	7c

One dozen for 75c.

RASPBERRIES.

King. —Very large, sweet scarlet fruit, very hardy. Each	5c.
Per dozen	50c
Golden Queen. —Yellow fruit, best of the yellow varieties, very sweet. Each, 5c. Per dozen.....	50c
Kansas. —Black raspberry, strong flavor. Each, 5c. Per dozen	50c

BLACKBERRIES.

The three following are recognized as the best varieties of their kind. Each, 5c. Per dozen, 50c.

Snyder.

Taylor

Ancient Briton.

GRAPE VINES.

1 year old strong vines, hardy in any locality. Each, 7c. Entire collection of the following 4 vines, 25c.

Brighton, Red.

Moore's Early, Purple.

Niagara, White.

Concord, Black.

FLOWERS (Garden Calendar)

The following is the list of varieties of flower and vegetable seed which we are offering to the children at a penny a packet. They have been found to be the most popular varieties and are all of the finest strains, the same seeds, exactly, that we sell to our most critical trade. We are giving the descriptions of the flowers herewith, for the benefit of those to whom they are not familiar, that they may know when and how to order and plant, and what results to look for.

Full cultural directions for each variety are printed on the back of each packet.

NAME	WHEN TO PLANT		FLOWERING PERIOD	COLOR	HEIGHT	COMMENT
	Indoors	Outdoors	Distance Apart, ins.			
Ageratum	March	May 10.....	6 June Oct..	Blue, white	8 to 12 in..	Annual, grown from seeds or cuttings.
Alysum	May June.....	4 June Oct..	White	6 in.....	Annual, for borders, fragrant.
Amaranthus	May	June Oct..	Red foliage	3 to 6 ft...	Annual, for center of a flower or border of a bed of tall plants.
Antirrhinum	Aug. May.....	July Oct..	Crimson, yellow, orange, rose	2 to 3 ft..	Annual or perennials, similar to "Snapdragon" but larger.
Aster (mixed)	April	May June.....	9 July Oct..	Purple, pink, white, yellow	1½ to 2½ ft.	Bedding annual.
Balloon Vine or Love in a Puff	May	12 July	Inflated white capsule .....	.....	Climbing vine of rapid growth.
Bachelors Button	April	9 July	Blue, white, lavender, rose	2 ft.....	Beautiful if planted in masses.
Balsams (mixed)	May 10.....	9 July Sept.	Red, white, pink, yellow	1½ to 2 ft.	Annual or perennials of spreading habit.
Bells or Daisy (mixed)	May 10.....	12 July	White, pink, red	1 to 1½ ft.	Climbing vine, ivy-like leaves.
Cypress Vine (mixed)	May June.....	12 July Oct..	Scarlet, white	1 to 1½ ft.	Easily grown, annual.
Calendula	May June.....	6 June Oct..	Yellow, orange	6 in.....	Low growing, spreading foliage, do not transplant.
Eschscholtzia	May 10.....	4 July Aug.	Yellow, orange	1 to 2 ft..	Require little or no care.
Calliopsis	May 10.....	6 July Oct..	Yellow, brown	12 to 16 in.	Perennial, blooming the second year.
Campanula or Canterbury Bells	Aug.	12 June Oct..	Blue, white	6 in.....	Annual for beds and borders.
Candytuft (mixed)	May June.....	4 June Oct..	Blue, white, pink, red, purple	1½ to 2 ft.	Tender annual, beautiful as cut flowers.
Centaurea	April	6 June Oct..	Blue, white, pink	1 to 2 ft..	
Cosmos (mixed)	April	May 10.....	12 July Sept.	White, red, pink	1 to 2 ft..	

FLOWERS (Garden Calendar)

NAME	WHEN TO PLANT		FLOWER - ING PERIOD	COLOR	HEIGHT	COMMENT
	Indoors	Outdoors	Distance Appt. Ins.			
Dianthus or Pinks	.....	May 10.....	6 July	Red, white, pink	12 in.....	Annual or biennial.
Digitalis or Foxglove.	.....	July Aug.....	9 July	Rose, red, yellow, white	1 1/2 to 2 ft.	Good for a hardy border.
Forget-Me-Not Myosotis	.....	May.....	4 June	Blue.....	6 ins.....	Hardy perennials, once established they sow themselves.
Four O'Clocks	April.....	May 10.....	8 July	White, pink	12 to 14 in.	Annuals for beds or borders.
Gaillardia (mixed)	April.....	May 10.....	6 July	Yellow, red	2 to 2 1/2 ft.	Showy annual.
Hollyhocks	April.....	June.....	15 Aug.	White, red, yellow	6 to 8 ft.	Perennial.
Larkspur	April.....	May 10.....	6 June	Blue, white	2 to 3 ft.	Grow in masses good for cutting.
Lobelia	April.....	May 10.....	4 June	Blue, white	4 to 5 ins.	For low edgings.
Marigold	April.....	May 10.....	6 July	Brown, red, yellow	12 ins.....	Annual—easily grown.
Moon Flower	March.....	May 20.....	6 July	White, blue	20 to 30 ft.	Climbing vine.
Morning Glory, Dwarf.	.....	May.....	6 July	Red, purple, blue	12 to 14 ins.	Low growing annual.
Morning Glory, Tall	.....	May.....	6 July	White	10 to 15 ft.	Climbing vine.
Mignonette	April.....	May 10.....	6 July	.....	9 ins.....	Very fragrant.
Nasturtiums, Dwarf	April.....	May 10.....	6 June	Red, yellow	9 ins.....	Low growing annual.
Nasturtiums, Tall (mixed)	April.....	May 10.....	6 June	Red, yellow	5 ft.....	Climbing vine.
Nasturtium, Tall (mixed)	April.....	May 10.....	6 June	.....	.....	.....
Welgellia (Love in the Mist)	.....	May 10.....	9 July	Pink, blue, white	6 ins.....	Low growing annual.
Memopula	.....	May.....	6 June	All colors	9 ins.....	Excellent for borders.
Poppy	April.....	May.....	4 June	Red, white, pink, yellow	9 ins.....	Do not transplant.
Petunia	Feb. April.....	May 10.....	4 June	Purple, pink, white	9 ins.....	Free flowering annual.
Globe Amaranth	.....	May.....	8 July	Red	12 to 16 ins.	Annual, globe-shaped flowers
Godetia (mixed)	.....	May.....	8 July	Rose, red, white, purple, lilac	12 to 14 ins.	Hardy annual.
Heliotrope	March.....	May 10.....	8 July	Purple	9 to 12 ins.	Half hardy perennials,
Pansy, May's New	.....	May.....	4 April	Purple, yellow, white	9 ins.....	Give rich, cool, moist soil.
English Mixture	Aug. May.....	April.....	4 April	Purple, yellow, white	9 ins.....	Give rich, cool, moist soil.
Pansy, Imperial (mixed)	Aug. May.....	April.....	4 April	Purple, yellow, white	9 ins.....	Give rich, cool, moist soil.
Pansy, Fine (mixed)	Aug. May.....	April.....	8 July	Red, white, pink, lavender	2 ft.....	Annual.
Phlox (mixed)	April.....	May 10.....	4 July	Red, white, pink, yellow	6 ins.....	For dry, sandy and sunny spots.
Portulacca	.....	May July.....	12 July	Red	20 to 30 ft.	Vine climbing over porches, etc.
Scarlet Runner Beans	.....	May.....	6 July	Rose, white, yellow, variegated	12 ins.....	Annual, low growing, excellent as border.
Schizanthus, Butterfly Flower	.....	May.....	6 July	.....	.....	.....

FLOWERS (Garden Calendar)

NAME	WHEN TO PLANT		FLOWERING PERIOD	COLOR	HEIGHT	COMMENT
	Indoors	Outdoors	Distance Apart, Ins.			
Sweet William		May 10	6 July	Pink, red, white	12 ins.	Very hard, easily grown flower.
Stocks, German Mixed	April	May 10	12 July	Pink, white, scarlet, yellow	8 to 12 ins.	Good for beds.
Salvia Splendens (Scarlet Sage)	March	May 10	18 Aug.	Scarlet	1½ to 2 ft.	Give a green background on rich, sand soil.
Sweet Peas, Finest Mixd.		April	3 July	Many colors	2 to 7 ft.	Plant early in rich, moist soil in the open.
Sweet Peas, Spencer Mixed		April	3 July	Many colors	2 to 7 ft.	Plant early in rich, moist soil in the open.
Sweet Peas, Giant Calif. Mixed		April	3 July	Many colors	2 to 7 ft.	Plant early in rich, moist soil in the open.
Verbena	Feb. April	May 10	6 June	White, red, blue, pink.	12 in.	Annual—fine for bedding.
Wallflower		April May	June Sept.	Red, white	1 to 1½ ft.	Fragrant, half hardy perennial.
Wild Flower Garden		May				Varieties of easiest and sweet growing kinds to sow broadcast.
Zinnias	April	May 10	6 June Oct.	Red, yellow, white, pink	12 in.	Good summer plant for beds.

VEGETABLES (Garden Calendar)

NAME	WHEN TO PLANT		BEARING PERIOD	COLOR	COMMENT
		Distance Apart in Rows.			
Beans, Black Wax	May	6 to 8 in.	43 to 60 days	Waxy yellow	Very productive, 15 ins. high.
Beans, Golden Wax	May	6 to 8 in.	43 to 60 days	Golden yellow	Flat, stringless, 16 ins. high.
Beans, Red Valentine	May	6 to 8 in.	43 to 60 days	Green	For garden or market, 15 ins.
Peas, N. W. Premier	As soon as ground can be worked	4 to 6 in.	50 to 60 days	Bright green	Earlier than any other, 20 ins.
Peas, Gradus	As soon as ground can be worked	6 to 8 in.	50 to 60 days	Light green	Tender and sweet, 2 to 3 ft.
Peas, Thos. Laxton	As soon as ground can be worked	6 to 8 in.	65 days	Light green	Pods contains 7 to 8 large peas, 3 feet high.
Corn, Early Minnesota	May	8 in.	55 to 75 days	Large white cobs	Sweet and tender, 5 ft. high.
Corn, Country Gentleman	June 1st	8 in.	85 to 90 days	Clear white	Favorite late variety, 6 to 7 ft. high.
Beet, Early Blood Turnip	As soon as ground can be worked	3 to 4 in.	50 to 65 days	Deep crimson	Very early, good keeper.

VEGETABLES (Garden Calendar)

NAME	WHEN TO PLANT	Distance Apart in Rows.	BEARING PERIOD	COLOR	COMMENT
Beet, Long Smooth Blood...	As soon as ground can be worked	3 to 4 in...	60 to 70 days...	Dark red	Excellent late variety.
Cabbage, Hollander or Danish Ballhead	April and May, transplant June and July.	2 ft.	120 to 140 days.	Light green	Very popular.
Carrot, Half Long Stump Root	April and May.	3 in.	70 to 90 days...	Bright orange	Excellent for home use.
Cucumber, Early Frame.	When weather settles.	3 in.	70 to 90 days...	Dark yellow	Very popular and well known.
Cucumber, Imp. Long Green	When weather settles.	4 to 6 ft.	50 to 55 days...	Bright green	Used for table and pickling.
Herbs, Mixed	April	2 to 3 in.	50 to 60 days...	Dark green	Long, firm and crisp.
Kohl Rabi, Early Purple	April	4 to 6 in.	60 days	Purple	No garden complete without herbs.
Lettuce, Big Boston.	April	5 in.	40 to 60 days...	Bright green	Flesh white, of good flavor.
Lettuce, May King	April	5 in.	40 to 60 days...	Yellowish green	Like forcing variety.
Lettuce, Prizehead	April	5 in.	40 to 60 days...	Brown tinged	Solid heads of large size.
Muskmelon, Nettle Gem	May	4 to 6 ft.	90 to 100 days...	Flesh green	Crisp, tender and sweet.
Rockyford	May	4 to 6 ft.	90 to 100 days...	Flesh green	Well known for its good qualities.
Watermelon, Ice Cream or Peerless	May	8 to 10 ft.	120 to 140 days...	Flesh pink	Solid to the center.
Onion, Red Globe	April	2 in.	85 to 90 days...	Purplish red	The handsomest of all.
Onion, White Globe	April	2 in.	85 to 90 days...	Pure white	Mild flavor and good keeper.
Onion, Prizetaker	April	2 in.	85 to 90 days...	Pale yellow	Large size, handsome appearance.
Parsley, Moss Curled	April	6 in.	60 days	Dark green	Leaves beautifully curled and crimped.
Parsnip, Hollow Crown	April	3 to 4 in.	85 to 100 days...	White	The best variety known.
Pepper, Bell or Bull Nose.	March	2 in.	85 to 100 days...	Bright red	Mild flavor, thick and fleshy.
Pumpkin, Sugar	May	8 ft.	100 to 120 days...	Deep orange yellow	The best for making pies.
Radish, Scarlet Globe	April	4 in.	18 to 22 days...	Brilliant red	Best for garden or market.
Radish, Scarlet Turnip, White Tip	April	4 in.	18 to 22 days...	Red, white tipped.	Crisp, mild flavor.
Radish, French Breakfast.	May	4 in.	25 to 45 days...	Scarlet, white tip	Very mild and tender.
Radish, Long Scarlet.	May	4 in.	25 to 45 days...	Bright red	A standard, popular sort.
Short Top	May	4 in.	25 to 45 days...	Pure white	Finest of pure white varieties.
Radish, Tete	May	4 in.	25 to 45 days...	White	Superior quality and delicious
Salsify, Mam. Sandwich Island	April	6 in.	130 days	Dark green	Thick curled leaves.
Spirach, Bloomsdale	April	3 in.	20 to 30 days...	Yellow	Early and prolific, true type.
Squash, Crookneck	May	4 ft.	55 to 65 days...	Dark green	Flesh golden yellow.
Squash, Hubbard	May	8 ft.	100 to 115 days...	White, purplish top	Early and good keeper.
Turnip, Purple Top White Globe	May	3 to 4 in.	60 days	White, purplish top	Early and good keeper.

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Working Man's Home

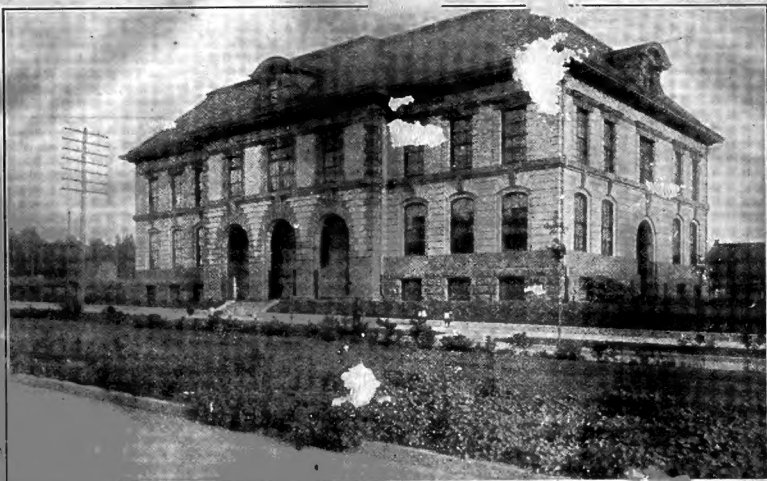


CORRELATIVE to factory planting is the embellishment of the home of the workingman. A few packets of seed will work wonders in transforming a cottage, and a vegetable garden may be a source of great pleasure and profit with little labor; a very few feet of ground being sufficient to furnish summer and winter vegetables for a good sized family.

We can make special prices to factories ordering in large quantities, whose operatives may desire to order through their firm.

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SCHOOLS



FINE School Buildings testify generally to the efficiency of our public school system, but, have you ever noticed the pitiful attempts of individual teachers to instil ideas of beauty into the young mind by dreary little window boxes that struggle feebly for life, like children in sweatshops.

Nothing Inspires Such Delight

in a child as observation of nature and natural things, and the child mind as does no other, to influence good and beautiful. Plant trees and shrubs around your school buildings, teach the children to respect them, and you will find a raising of the whole tenor of your school. A reference for trees will give children a refinement they will get in no other way, and especially is this true of the children from the meaner districts of the large cities, where oftentimes the only conception the little things have of "the country" is based on the impressions from the school yard. Give these little ones a fraction of the delight you used to know at the country school house. Ornament play grounds and school yards. The expense will be little compared with the results to the children, as well as to the civic pride. Our Landscape Architect will cheerfully furnish plans and estimates for all school buildings.